

AMENDMENTS TO THE CLAIMS

Claims 1–10. (Cancelled)

11. (Currently Amended) A computer controlled method for processing an order for programmable integrated circuits (ICs), comprising the steps of:

receiving a plurality of configurations from a plurality of customers by a vendor of the programmable integrated circuits;

storing the plurality of configurations, the storing being performed by the vendor;

pulling specified volumes of un-programmed ICs from inventory by the vendor in response to an order from a first customer of the plurality of customers;

encrypting, by the vendor using an encryption system provided by the first customer, one of the plurality of configurations selected by the first customer, whereby an encrypted configuration is generated;

loading by the vendor, the encrypted configuration into programming the specified volumes of ICs by the vendor with one of the plurality of configurations selected by the first customer; and

loading by the vendor, a decryption program into the specified volumes of ICs, wherein the decryption program is provided by the first customer; and

packing the programmed ICs for shipment from the vendor to the first customer.

12. (Original) The method according to claim 11, wherein the ICs comprise field programmable gate arrays (FPGAs) and the step of programming comprises the steps of:

attaching a memory device to the FPGAs; and

programming the FPGAs using the selected configuration stored in the memory device.

13. (Original) The method according to claim 11, wherein the ICs each comprise a field programmable gate array (FPGA) and a memory device connected to the FPGA co-resident in one package and the step of programming comprises the step of:

programming the memory device while it is connected to the FPGA; and
powering up the FPGA and the memory device in order that the memory device configures the FPGA.

14. (Original) The method according to claim 11, wherein the ICs each comprise a field programmable gate array (FPGA) and a memory device connected to the FPGA co-resident on a common die and the step of programming comprises the step of:

programming the memory device while it is connected to the FPGA; and
powering up the FPGA and the memory device in order that the memory device configures the FPGA.

15. (Original) The method according to claim 12, wherein the memory device is selected from a group consisting of a programmable read only memory (PROM), NAND flash, NOR FLASH, erasable PROM, and electrically erasable PROM.

16. (Original) The method according to claim 13, wherein the memory device is selected from a group consisting of a programmable read only memory (PROM), NAND flash, NOR FLASH, erasable PROM, and electrically erasable PROM.

17. (Original) The method according to claim 14, wherein the memory device is selected from a group consisting of a programmable read only memory (PROM), NAND flash, NOR FLASH, erasable PROM, and electrically erasable PROM.

18. (Original) The method according to claim 14, wherein the memory device is an anti-fuse.

19. (Original) The method according to claim 11, further comprising the step of testing the programmed ICs.

20. (Original) The method according to claim 11, further comprising the step of labeling the programmed ICs to reflect the selected configuration.

21. (Previously Presented) The method according to claim 11, further comprising tracking sales of the volumes of ICs programmed using the selected configuration.

22. (Original) The method according to claim 11, wherein the selected configuration is developed by the customer.

23. (Original) The method according to claim 20, wherein the step of labeling comprises marking the programmed ICs with at least one of a customer name and a customer logo.

Claims 24–42. (Cancelled)

43. (New) The method of claim 11, further comprising:

for each of the specified volumes of ICs received by the first customer, storing by the first customer, a decryption key in a memory that is coupled to the IC, wherein the memory and IC reside on a device, and the memory is inaccessible for reading external to the device; and

for each of the specified volumes of ICs received by the first customer, executing the decryption program, wherein the decryption program reads the key, decrypts the encrypted configuration data into decrypted configuration data, and initializes the IC with the decrypted configuration data.